

A M A T E U R R A D I O

JULY 1963



Vol. 31, No. 7

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OUR COVER

Turn to page 10 for a Profile of
VK3ZEB, Ray Bedson.

FEDERAL COMMENT

★

HISTORY AND TRADITION

Every great Institution has records of past events. Events which have served as milestones in its history. By the same token every organisation worth its salt accumulates over the years many traditions of which it is justly proud.

The Wireless Institute of Australia is such an organisation, a fact which has helped the Radio Amateurs of this country to attain the prestige and privilege of being members of the world wide Amateur Radio Service—an integral part of the international communications system.

We, the individual members of such a worth while organisation, are charged with the duty of ensuring that:—

No gaps are left in the historical records of the past and present.
Great traditions are upheld, created and recorded.

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With this purpose in mind, your Federal Executive will publish extracts of our historical records in this, your magazine, in the hope that interested persons who can fill any gaps which appear to exist in our records will communicate same to us for inclusion therein.

To those persons who have already, or will in the future, contribute to this worthy object we say—Thank You!

FEDERAL EXECUTIVE, W.I.A.

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D.S.B. AND S.S.B. AT V.H.F.

K. WOODWARD,* VK2ZAU

IT is not the intention of this article to debate the merits of sideband transmission over straight a.m. as these are now well established facts. Instead, it is wished to relate the experiments of the author and collaborators in getting their "feet wet" on sideband.

Fig. 1 illustrates the first double sideband transmitter built and tested. Whilst good results were obtained with this circuit the carrier suppression left a lot to be desired, and at 50 Mc. it would seem that improving the suppression might be difficult with the

1200 volts applied to the plates a peak power output of 200 watts is obtainable from the two valves. As the average screen volts are very low, the plate dissipation will not be exceeded, even at double plate voltage. Needless to say, your power supply should be capable of handling the large excursions in loading.

Having proved that double sideband was feasible on 50 Mc., and reasonably simple to receive, the next step was to build up a rig capable of running high power. This was achieved as shown in Fig. 2 by the use of 6DQ8A

mobile was not equipped with a b.f.o. The signal was not decipherable as a.m., however a lead from the aerial of a dual-wave transistor set was laid next to the tuneable i.f. mixer and tuned 455 Kc. from the frequency of the tuneable i.f. Thus the local oscillator of the transistor set beat against the signal and gave perfect reception. I hasten to add that the mobile is now complete with b.f.o.

The same audio is used for both Fig. 1 and Fig. 2, the link coupling in Fig. 2 being used as a possible i.v.i. precaution. When used at VK2ZVL's QTH on low power and at VK2ZQK's QTH on high power, no trace of i.v.i. was discernible on any Sydney channel. It will be necessary to try the balance network on either 6DQ8A grid to see which will give the best balance, sometimes a balance trimmer may not be required.

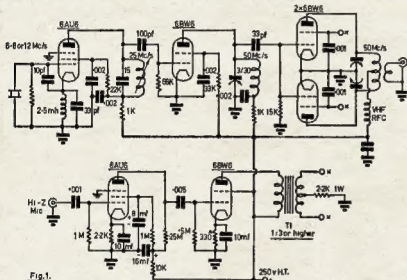


Fig. 1.

circuit configuration. However, jumping ahead a little, the final could be built to conform with that of Fig. 3, using the 6BW6s, and thus obtain a very efficient low power double sideband transmitter.

The circuit is quite straight-forward in the oscillator, multiplier and audio stages, the diverging point being in the final amplifier. The carrier is fed to the 6BW6 valves in parallel, and as the plates are connected in push-pull configuration the carrier is balanced out. The modulating voltage is applied to the screen-grids and according to the instantaneous polarity of this voltage, determines the plate current of either valve, and in this process produces the two sidebands with suppressed carrier. A wide selection of pentodes or tetrodes could be substituted in this circuit. To calculate the peak power output which can be obtained, take the normal class C telephony output power for one valve, as quoted in the valve data book, then multiply it by four.

Take the case where the class C telephony output for a single valve was 50 watts at 600 volts, then with

valves in the balanced modulator. Speech peaks will run the rig slightly past 100 watts input with 600 volts on the plates. At the first stage of testing, this equipment was run with 300 volts on the plates, not very well regulated, and was copied at a distance of 30 miles under novel circumstances.

The transmitting site was VK2ZVL at Lakemba, the receiving site the author's mobile equipped with 50 Mc. whip. At the time, VK2ZVL was using a two element vertical beam and my

While not tried on this rig, Fig. 3 gives a modification which could make tuning of the balanced modulator easier. The capacitive loading of the driver plate circuit makes the choice of the lower grid circuit for the balance capacitor mandatory. For tuning up the final and balancing out the residual carrier, a rectifier and moving-coil meter combination, as shown in Fig. 4, is virtually a must.

Whilst the double sideband transmitters have been featured for simplicity, they have another advantage over a.s.b. in that speech clipping can be used. When speech clipping is used on a d.s.b. signal the readability under adverse conditions is such that a solid contact can be maintained when other-

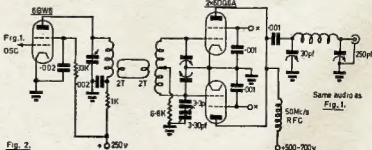


Fig. 2.

Fig. 3.

* Flat 28, 48 Morehead Street, Redfern, N.S.W.

wise without clipping the signal would not be readable.

When designing d.s.b. transmitters you can help the other fellow on the reception end by suppressing the low frequency components of the speech. This can be brought about by using small coupling capacitors, such as 0.001 μ F, between stages. When present research is completed it is hoped to publish details of a mobile transmitter including speech shaping and clipping and also dealing with the problems of sideband reception.

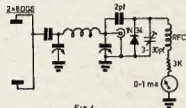


Fig. 4.

If not already known, four Amateurs in New South Wales have formed the V.H.F.-D.X. Club to further the progress in long-distance working on v.h.f. bands and to aid this purpose issue a certificate to anyone fulfilling certain performances. The members of the club have tried to pioneer the use of sideband on 50 Mc. in N.S.W. and the circuit in Fig. 5 gives details of the club project being built up by the members.

The idea was to build up an exciter that was compact, simple and capable of driving a linear amplifier to a reasonable power level. Whilst not claimed to be the ultimate in s.s.b. excitors, the first one finished by VK-22VL has given quite a good account of itself, both barefoot and driving a linear. Incidentally, this rig is thought to be the first s.s.b. rig on 50 Mc. in N.S.W.; any other claims? Also, to the author's knowledge, the first 50 Mc. d.s.b. in N.S.W. came from the author's shack.

Referring to Fig. 5, V1 combines two functions, carrier oscillator and modulator. The carrier frequency and modulation are applied to the balanced

modulator which uses a pair of OA202 silicon diodes. The d.s.b. signal from the balanced modulator is fed to a crystal filter which disposes of the unwanted sideband (lower). V3 combines the function of mixer and class A amplifier at 50 Mc., while V2 is the oscillator multiplier chain to obtain the necessary frequency to convert the s.s.b. generated signal to 50 Mc. The final valve in the exciter can be run in class A or AB1 at 50 Mc. and develops enough drive to run a high power linear. Thus a total of four valves will transmit barefoot a 50 Mc. s.s.b. signal or develop enough power to drive your favourite linear amplifier.

It will be necessary for the prospective constructor to either have access to frequency measuring equipment or to purchase the crystals already ground to frequency. The club purchased 30 odd crystals which were frequency checked and the necessary grinding undertaken. Do not be frightened to grind your own crystals as with the small frequency change to be made, it is very unlikely that you will damage the crystal. Normally it would be necessary to measure the anti-resonant frequency of the crystals, but this seemed difficult at this frequency with the equipment available so we settled for measuring the frequency of each crystal in the same test oscillator with a Bendix frequency meter.

We started with all crystals on the same frequency, Y1 and Y2 being selected at the same frequency. Y3 was then ground for the required separation frequency which should lie between 1.7 Kc. and 2.5 Kc. You can see therefore that this is not so very critical. Y4 is not strictly necessary, but if used its anti-resonant frequency should be at the oscillator (carrier) frequency or a few cycles lower. After the rig is working you could try several crystals if available with the same marked frequency and leave the best resulting crystal in circuit. The function of Y4 is to give increased carrier or unwanted sideband suppression.

The crystals were ground for the originals using a marble slab borrowed from the kitchen and some hand clean-

ing preparation which allowed me to sneak up on the 1.7 Kc. spacing with quite good accuracy. Whilst the crystals used were approximately 5.7 Mc., they could be any frequency close to this as long as the coils will resonate to the chosen frequency.

Details of T1 and T2 are given, but check with your g.d.o. (allowing for the shielding can) to ensure that the coils will tune to the frequency. In particular be careful when making the bi-bar winding on T1 as if this is made incorrectly nothing will make the balanced modulator work. The original models use all shielded coils. While possibly not entirely necessary, the carrier (when the exciter is driving a 2L linear) is not detectable from VK-22VL's transmitter at the author's QTH, so that extra care will pay in results achieved.



Fig. 5. Bifilar winding.

The winding of a bifilar coil is illustrated in Fig. 6. Take two lengths of insulated wire and calling the two starting ends A and C, wind them alongside each other to the required number of turns, the finishing ends being B and D respectively. Now join end D to start A, this junction being earthed; the two remaining wires go to each respective diode in Fig. 5.

ALIGNMENT

This is where care should be thoroughly exercised as a filter rig initially well aligned and stabilised will give long-term enjoyment with no fussy re-adjustment. You will require preferably, (1) a stable well-shielded general coverage receiver capable of s.s.b. reception plus a 50 Mc. converter,

(Continued on Page 7)

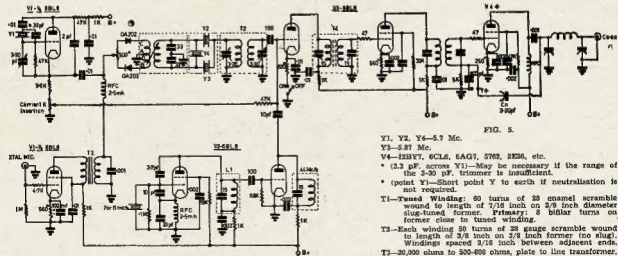


FIG. 5.

Y1, Y2, Y4—5.7 Mc.

Y3—5.87 Mc.

V4—12BY6, 6CL6, 6AG7, 5763, 2E86, etc.

* (3.2 pF across Y1)—May be necessary if the range of the 3-30 pF trimmer is insufficient.

* (point Y1)—Short point Y to earth if neutralisation is not required.

T1—Tuned Winding: 60 turns of 28 gauge scramble wound to length of 7 1/2 inch on 3/8 inch diameter slug-tuned former. Primary: 8 bifilar turns on former close to tuned winding.

T2—Each winding 50 turns of 28 gauge scramble wound to length of 3 1/8 inch on 3/8 inch former (no slug). Windings spaced 3/16 inch between adjacent ends.

T3—20,000 ohms to 500-600 ohms, plate to line transformer.

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T. W. BARNES,* VK2ABI

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The condenser is periodically discharged by a neon glow tube which "relaxes," that is, abruptly reduces its resistance when the voltage across the condenser reaches a value capable of initiating a massive ionisation of the gas in the tube.

The cycle of charge and discharge is continuously repeated so long as power is supplied to the circuit. Provided that the discharge time remains a small part of the total time of the cycle, the frequency can be said to depend on the resistance and capacitance involved, the voltage of the supply, and on characteristics of the glow tube, or only on the first two when the others are fixed. The wave generated is saw-tooth in form.

Fig. 1 shows the typical circuit of such an oscillator. C is the condenser referred to and R the resistor determining the rate of charge of C. The resistor R1 may be present to limit the current through "N" (the neon tube) to a safe value. R1, if present, has a value which is small compared with that of R.

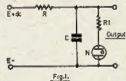


Fig. 1.

The voltage at which a glow tube initiates discharge of the condenser is commonly about 120, and discharge commonly ceases at about 70 volts; the difference is approximately 50 volts.

When a d.c. potential, E_{dc} , is applied across CR in Fig. 1, a voltage E_s appears across R due to the flow of current into the condenser C and at the same time a voltage E_c appears across C due to the charge stored in it. The voltage E_s equals E_{dc} plus E_c . E_c opposes the flow of fresh charge into the condenser and a graph of E_s and E_c against time has the form shown in Fig. 2.

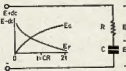


Fig. 2.

Voltage E_s is determined by the expression

$E_s = E_{dc} e^{-1/CR}$ and E_c by $E_c = E_{dc} (1 - e^{-1/CR})$ in which "t" is the time in seconds, "C" is the capacity in farads, "R" is the resistance in ohms and "e" is a number, 2.718.

* "Kangra," Cabbage-tree Lane, Fairy Meadow, N.S.W.

From these equations, when $t = CR$ seconds,

$$E_s = 0.368 E_{dc} \text{ and } E_c = 0.632 E_{dc}$$

Another way of expressing E_s and E_c is to say that:—

$$t = 2.301 CR \log (E_{dc} \div E_s) \\ \text{or } t = 2.301 CR \log [E_{dc} \div (E_{dc} - E_c)]$$

These equations are only satisfied if the condenser C is initially completely discharged.

If a switch was provided across C and this was immediately closed at instant CR seconds so as to short circuit the condenser, the output voltage E_c would go through one cycle shown in Fig. 3; if this cycle was immediately and continually repeated, a saw-tooth output waveform, approximately triangular in shape, would result.

Its period would be $t = CR$; its frequency (f) would be $1 \div CR$.

Automatic switching may be provided by the inclusion of a glow-tube, but the frequency will be modified.

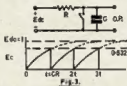


Fig. 3.

Gas discharge tubes contain two electrodes, cathode and anode; the cathode may be cold or hot (thermionic) and the tube contain neon, mercury vapour, hydrogen, or some other gas.

These, together with the physical design of the electrodes, permit a variety of characteristics; for example, the voltage difference between ignition and extinction of discharge may be as low as 10 volts in some tubes.

The gas within the tube is at low pressure. As a result the mean free path of particles is great enough to allow an acceleration significant enough to cause massive ionisation when the potential reaches a critical value.

When this occurs the tube behaves very much like a short circuit.

The critical voltage, called the "ignition voltage" (E_i) in a cold cathode glow tube is, may, 120 volts.

The sudden fall in the internal resistance of the tube has quite a rapid onset and the voltage across the tube will usually rapidly fall to some lower value, called the holding value.

It is interesting to note that although the current through the tube may rise to a relatively high value, the internal resistance undergoes such a reduction that for quite a range of current values the tube voltage drop remains approximately constant. There is a plateau in the curve relating current to voltage.

This is due to the emitting area of the cathode increasing approximately linearly with current in this phase. Continued increase in tube current will eventually cause an increase in tube voltage drop, the whole cathode area

now being active, culminating in arcing which might destroy the tube.

This is the reason for the inclusion of the resistor R1 already mentioned. This resistor is commonly wired into the tube cap in the bayonet type base. A 0.22 megohm resistor can be seen within the red fluorescent plastic case of the warning light incorporated into some of the three-pin flat power outlets.

A fall in voltage below a critical value known as the extinction voltage (E_e), about 70 volts, allows a fairly rapid but not instantaneous exhaustion of ions within the tube and the tube internal resistance rises to a high value; effectively an open circuit.

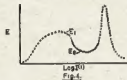


Fig. 4.

The extinction voltage is of the same order as that of the plateau shown in solid line in Fig. 4.

When such a tube is connected in parallel with the condenser of CR, it will act as a switch, closing at the ignition voltage and opening at the extinction voltage, giving a wave shown in Fig. 5, as E_c varies with time.

It is apparent that in this new situation, for the same CR, the frequency is greater than before, since the time taken for the voltage to rise from E_e to E_i is, in practice, smaller.

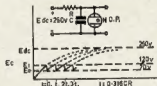


Fig. 5.

At low frequencies the discharge from E_i to E_e can be considered instantaneous, but in fact it is not so and as the frequency rises (the product CR decreases), the discharge will occur over an increasing fraction of the total period of the cycle, particularly because the extinction is not instantaneous.

Ultimately then, as CR diminishes, discharge will become continuous. It is stated that the shortest time of denisation may be as little as 10 microseconds but is commonly about 150 and in some cases may well be 300 microseconds.

Thus the upper limit of frequency of oscillation is generally less than 10,000 cycles per second, and where a tube glows, but does not oscillate, the design frequency may be too high.

It seems that the upper frequency for the bayonet capped pilot light may well be as low as 1,000 cycles; but a fluorescent starter still oscillates strongly at 3,600 cycles.

The new relationship between time and CR after the first ignition of the tube is:—

$$t = 2.301 \text{ CR} \log \left(\frac{E_{\text{Eoc}} - E_1}{E_{\text{Eoc}} - E_2} \right)$$

for one excursion from E_1 to E_2 .

When E_{Eoc} is 250 volts, E_1 120, and E_2 70 volts, the expression above reduces to,

$$t = 0.316 \text{ CR for one excursion from } E_1 \text{ to } E_2.$$

If the discharge time be ignored, as is reasonable at low frequencies,

$$f = 3.16 \div \text{CR} = 1 \div 0.316 \text{ CR}.$$

At useful frequencies, the wave is more nearly triangular as E_1 — E_2 becomes small compared with E_{Eoc} .

These oscillators may be synchronised or locked to a cyclic voltage E_1 if a sufficient "pulse" of that voltage be injected into the oscillatory circuit.

Locking occurs when the free running frequency of the "neon" oscillator is somewhat less than that of E_1 .

The effect is represented in Fig. 6 where the injected pulse causes the glow tube to ignite just before its "normal" instant. Locking on extinction would ordinarily be more chance-like.

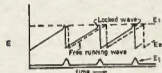


Fig. 6.

Such a device was used in the time base of a simple oscilloscope whose circuit appeared in the A.R.E.L. Handbook of 1946.¹

An adaptation of this circuit to local practice is shown in Fig. 7.

A particularly simple Morse practice oscillator may be made by using this oscillator. Provided it is operated without grid current and with a supply with good regulation, or in Class A, it should have no key chirp.

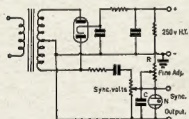


Fig. 7.

Some experiment may be necessary to avoid key click and in addition some trouble may arise if the key appears "leaky"; the timing circuit can be a high impedance circuit and see the open key as "just another resistor". Fig. 8 shows how, with an available drive of about 50 volts, full rated audio output of an EL3NG can be realised; it also shows how easily a domestic receiver can be made over for Morse practice. When the key was inserted at point X or Y in Fig. 8, it appeared leaky and click was bad (open key voltage 250v.); it works very well where shown

and without the need of "key shaping" which very readily creates an annoying back wave.

The device makes a very good "side tone" oscillator for monitoring keying in an electronic transmit/receive switch, see Fig. 9.² The oscillator is keyed by the blocking of the plate current of the 6C4.

In setting out to make a "neon" oscillator it is necessary to ensure that the applied voltage is considerably greater than the ignition voltage.

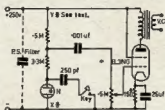


Fig. 8.

Attempts often fail because the constructor forgets the limiting resistor of the "pilot light" type tube. This resistor (perhaps 220,000 ohms) should either be removed or made part of the timing circuit.

A very effective and cheap glow tube is the fluorescent starter selling at about 2/6. Included with this (in parallel) is a condenser whose capacity, 0.006 μF , is sufficient to permit it to be used directly by addition of the appropriate series resistor.

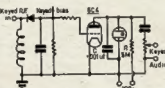


Fig. 9.

The electrodes of the starter tube form a small bi-metallic switch which closes during ordinary operation. In the application we are considering there is no likelihood of this; the tube works indefinitely, giving a beautiful reedlike tone.

Summarising we may say that in a given case the product CR is the main determinant of frequency. For the case chosen, the frequency approximates to $3.16 \div \text{CR}$. If high audio output is desired, it is better to use a tube with a large difference between E_1 and E_2 .

Everything else being correct, if the tube glows but does not oscillate, the design frequency is probably too high and CR should be increased; if the tube does not glow, the applied voltage is probably too low.

When tubes intended for other purposes are to be used, they may include some element which will prevent or modify operation.

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2. A.R.E.L. Handbook, 23rd Edn., 1946, p. 409.
3. "Break In at its Best," Rosenbaum, WSCPE: "A.R.," Dec. 1958.
4. "Pulse Techniques," Moskowitz & Racker; Prentice Hall, 1951.



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D.S.B. AND S.S.B. AT V.H.F.

(Continued from Page 3)

(2) a signal generator with an auxiliary output of 400 c.p.s., (3) a sensitive wavemeter.

With no h.t. applied to V2 or V4, ascertain that V1 oscillates and is crystal locked. With balance control to one side, talk into the microphone and you should be able to copy yourself at the carrier frequency on the general coverage receiver set up for a.m. Now join up V2 and ascertain that the oscillator-multiplier chain is working satisfactorily.

With the 50 Mc. converter in operation connect a small capacitor to the grid of V4 and feed through a shielded lead to the input of the converter. Tune the receiver to the expected transmitter frequency with the balance control still to one side and the carrier insertion control at zero. Peak T1, T2, T4 and T5, reducing the receiver r.f. gain as required. L1 and L2 may be finally aligned for maximum output.

Still with no h.t. on V4, transfer the coupling capacitor to the transmitter output connector, re-peak T4 and the pi network for maximum output. If neutralisation is used, adjust Cn and a sharp null should occur. Re-peak T4 and pi network and check Cn again, repeat if necessary. The final should now be neutralised. The balance control can now be set and should null the carrier at approximately the centre of its range.

If you are able to cut the level down far enough you should now be able to tune to s.s.b. on your receiver and check the performance. A sensitive wavemeter should be used to check the final to ascertain that no spurious frequencies or 45 Mc. from the multiplier stage is present. If in doubt, feed a 50 Mc. signal from the signal generator through V3, V4, T4 and T5 and re-peak T4 and T5. C1 can now be adjusted for best voice quality on the air consistent with unwanted sideband suppression.

In conclusion, I must point out that you should not regard a.s.b. as a cure-all for i.v. All normal precautions should be taken and as a s.s.b. signal will saturate a close t.v. set more so than an equivalent a.m. signal, keep on good terms with your neighbours. However, one bright point is that you will probably have no beating patterns on i.v. sets such as often occurs with a.m. signals. Come in, the water's fine! ●

Standardisation of Frequencies for F.M. Mobile Operation

Since the availability of mobile f.m. equipment, ex commercial services, there are upwards of 40 mobile and base units in operation in Victoria.

It is expected that this equipment will become available in other States in the near future, some having been released in South Australia recently.

Suggestions have been made that common frequencies throughout all States be established on the 50 and 144 Mc. bands to provide Amateurs with this equipment the mobile facilities which have become both appreciated and commonplace in Victoria and the U.S.A.

The frequencies may or may not be ideal, but since there are so many units in use, the cost of a change for all existing crystals would be prohibitive. (Forty odd units, with two per unit at approx. £6 per set.)

144 Mc. BAND

The frequency in present use in Victoria on the 144 Mc. band is 145.854 Mc., and further channels about to be used with approximate channel separation of 146 Kc. are as follows:—

Channel 1:

145.854 Mc.—Mobile to mobile, and mobile to base contacts.

Channel 2:

146.000 Mc.—Secondary channel for the same use as above.

Channel 3:

146.146 Mc.—Base to base contacts and link frequency.

50 Mc. BAND

The 50 Mc. f.m. equipment is only just established and suggested operating frequencies are as follows:—

Channel 1:

52.525 Mc.—Primary calling frequency (same as for 144 Mc. use).

Channel 2:

52.645 Mc. (same as for Channel 1 uses).

Channel 3:

52.765 Mc.—For base to base contacts and link frequency.

Since it is desirable that accurate crystals be obtained for this service, and in view of early difficulties with various crystals available, the Victorian

Disposals Committee would, if required, arrange the supply of these crystals for W.I.A. members.

It is emphasised that the standardisation of the above frequencies throughout Australia would provide Amateurs with mobile f.m. equipment with a service comparable with that now in operation in the United States of America, where there are f.m. nets with large numbers of Amateurs operating, complete with inter-city links on the v.h.f. channels.



ERRATA IN V.H.F. CONTEST RESULTS

The Federal Contest Committee regret that two errors appeared in the Ross Hull Memorial V.h.f. Contest 1962-63 Results that appeared in the last issue.

In Award Winners, Section B Transmitting Phone, VK3NJ should read VK3ZNJ, K. W. Jewell.

In the Individual Scores, Section B, again VK3NJ should read VK3ZNJ, of Beaumaris. Also VK3FN should read VK3FW, of Canterbury.

TECHNICAL ARTICLES

Readers are requested to submit articles for publication in "A.R." in particular constructional articles, photographs of stations and gear, together with articles suitable for beginners, are required.

W.I.A. D.X.C.C.

Listed below are the highest twelve members in each section. New members and those whose totals have been amended will also be shown.

PHONE

Call	Cer. No.	Cnt. ries	Call	Cer. No.	Cnt. ries
VK8RU	3	281	VK8WL	14	211
VK8AB	45	275	VK8ATN	28	204
VK8MK	43	278	VK8HR	12	182
VK8AJO	51	269	VK8VR	23	184
VK8FJ	21	247	VK8GB	50	183
VK8KW	4	211	VK8JZ	51	180

C.W.

Call	Cer. No.	Cnt. ries	Call	Cer. No.	Cnt. ries
VK8KB	10	310	VK8RU	18	240
VK8CK	26	294	VK8RP	38	229
VK8QL	5	279	VK8FH	15	205
VK8FJ	29	277	VK8GZ	6	222
VK8NC	19	266	VK8RX	22	220
VK8AGH	71	241	VK8HR	8	218

Amateurism:

VK3AXK	30	165	VK3JF	70	164
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OPEN

Call	Cer. No.	Cnt. ries	Call	Cer. No.	Cnt. ries
VK3ACK	6	300	VK3NC	17	269
VK8RU	8	290	VK3HG	3	269
VK8FJ	32	285	VK3JA	43	253
VK8MK	74	280	VK8HR	7	232
VK3AGH	53	274	VK3GZ	4	231
VK3AJO	76	272	VK3WL	45	225

New Members:

VK8GG	90	101
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REMEMBRANCE DAY CONTEST, 1963

A handsome perpetual trophy is awarded annually for competition between States, inscribed with the names of those who made the supreme sacrifice, and so perpetuating their memory throughout Amateur Radio in Australia.

The name of the winning Division each year is also inscribed on the trophy. In addition, the winning Division will receive a suitably inscribed framed photograph of the trophy.

Objects

Amateurs in each Call Area (this includes those in Australian Mandated Territories and Australian Antarctica) will endeavour to contact Amateurs in all other Call Areas (VK1 and VK2 are to be considered to be in the one Call Area; likewise VK5 and VK8).

Date of Contest

Saturday, 17th August, and Sunday, 18th August, 1963.

Duration

From 1800 hours E.A.S.T., 17th August, to 1759 hours E.A.S.T., 18th August, 1963. A period of 15 minutes' silence will be observed by all stations on 17th August, immediately prior to the beginning of the Contest, when an appropriate broadcast will be made and relayed from Divisional Stations.

RULES

1. There shall be four sections to the Contest:—

- Transmitting Phone.
- Transmitting C.w.
- Transmitting Open.
- Receiving Open.

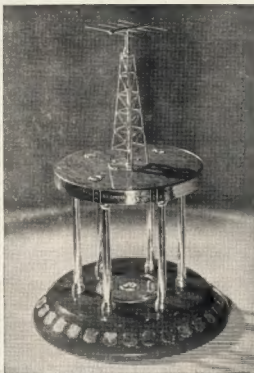
2. All Australian Amateurs may enter the Contest whether their Stations are fixed, portable or mobile, but only members of the W.I.A. are eligible for the awards.

3. All Amateur frequency bands may be used, but no cross-band operations are permitted.

4. Amateurs may operate on both phone and c.w. during the Contest (e.g. phone to phone, c.w. to c.w., or phone to c.w. and vice versa), but may submit an entry for one only of the above Sections listed in Rule 1.

An Open log will be one in which points are claimed for both phone and c.w. transmissions.

● The Federal Contest Committee of the Wireless Institute of Australia wishes all Australian Amateurs and Short Wave Listeners to participate in the Annual Contest which is held to perpetuate the memory of those Australian Amateurs who gave their lives for their country during World War II. It is held on the week-end nearest to 15th August, the date on which hostilities ceased in the South West Pacific Area.



Remembrance Day Contest Trophy

A contestant transmitting on phone, but receiving on c.w. must enter for the phone section (and vice versa). Refer to Rule 11 concerning entry in logs.

5. Only one contact per station per band is allowed and arranged schedules for contacts on other bands is not permitted.

6. Only one licensed Amateur is permitted to operate any one station under the owner's call sign. Should two or more operate any particular station, each will be considered a contestant and must submit a separate log under his own call sign.

Contestants operating Club Stations other than their own shall be referred to, for the purpose of these Rules, as "substitute operators". Their operating procedure shall be as follows:

Phone contacts: Substitute operators will call "CQ Remembrance Day" followed by the call sign of the station they are operating and the word "log" followed by their own call sign.

C.w. contacts: Substitute operators will call "CQ RD de" followed by the group call sign comprising the call sign of the station they are operating, an oblique stroke, and their own call sign.

Contestants receiving signals from a substitute operator will qualify for points by recording the call sign of the substitute operator only.

7. Entrants must operate within the terms of their licences.

8. Cyphers.—Before points may be claimed for a contact, serial numbers must be exchanged and acknowledged. The serial number of five or six figures will be made up of the RS (telephony) or RST (c.w.) reports plus three figures starting from 001 for the first contact and which will increase in value by one for each successive contact. If any contestant reaches 999, he will start again with 001.

9. Entries must be set out as shown in the example, using only one side of the paper, and wherever possible standard W.I.A. Log Sheets should be used. Entries must be postmarked not later than 18th September, 1963, and addressed to the Federal Contest Committee, W.I.A., Box 638J, Brisbane, Qld.

Your log could help your Division to win the Remembrance Day Contest Trophy.

SCORING TABLE

		To									
		VK0	VK1-2	VK3	VK4	VK5-8	VK6	VK7	VK9		
From	VK0	1	6	6	6	6	6	6	6		
	VK1-2	6	1	2	3	5	4	6			
	VK3	6	1	1	3	2	5	4	6		
	VK4	6	1	2	1	3	6	5	4		
	VK5-8	6	2	1	3	1	5	4	6		
	VK6	6	1	2	4	3	1	5	6		
	VK7	6	2	1	4	3	5	1	6		
	VK9	6	1	2	3	4	5	6	1		

Note.—Read table from left to right for points for the various call areas.

EXAMPLE OF TRANSMITTING LOG

Date/Time E.A.S.T.	Band	Emission	Call Sign	RST Nr. Sent	RST Nr. Revd.	V.h.f. Bonus	Points Claim.	
Aug. '63								
17 1803	7 Mc.	A3	VK3XU	59001	—	—	—	—
17 2349	"	"	VK8RU	56008	—	—	2	—
18 1200	50 "	"	VK8OP	43026	—	—	25	1

Note.—Standard W.I.A. Log Sheets may be used to follow above form.

EXAMPLE OF RECEIVING LOG (VICTORIAN S.W.L.)

Date/Time E.A.S.T.	Band	Emission	Call Sign Heard	RST Nr. Sent	RST Nr. Revd.	Station Called	V.h.f. Bonus	Points Claim.	
Aug. '63									
17 1803	7 Mc.	A3	VK3XU	59001	—	VK3XU	—	2	—
17 2349	"	"	VK8RU	56008	—	VK4YZ	—	8	—
18 1200	50 "	"	VK8OP	43026	—	VK9PA	25	1	—

Note.—Standard W.I.A. Log Sheets may be used to follow the above form.

10. Scoring will be based on the table shown

In addition a bonus of 25 points may be claimed for the first contact in each call area on 50 Mc. or above.

11. All logs shall be set out as in the example shown and in addition will carry a front sheet showing the following information:

Name	Section
Address	Call Sign
Claimed Score	

Declaration: I hereby certify that I have operated in accordance with the rules and spirit of the Contest.

Signed	
Date	...

All contacts made during the Contest must be shown in the log submitted (see Rule 4).

Entrants in the Open Section must show phone and c.w. contacts in numerical sequence.

12. The right to disqualify any entrant who, during the Contest, has not observed the regulations or who has consistently departed from the accepted code of operating ethics.

13. The ruling of the Federal Contest Committee of the W.I.A. will be final. No disputes will be entered into.

14. Certificates will be awarded to the winners of the phone, c.w., open

and receiving sections in each call area (Northern Territory will count as a separate call area). There will be no outright winner for Australia. Further Certificates may be awarded at the discretion of the Federal Contest Committee.

The State to which the Perpetual Trophy will be awarded shall be determined in the following way.

To the average of the top six logs shall be added a bonus arrived at by adding to this average the ratio of logs entered to the State Licensees multiplied by the total points from all entries.

Example:

$$\text{Average of the top six logs} + \left(\frac{\text{Logs Entered}}{\text{State Licensees}} \times \frac{\text{Total of Points}}{\text{from all Entrants}} \right)$$

Acceptable logs shall show at least five valid contacts.

The Trophy shall be forwarded to the winning State in its container and will be held by that State for a period of twelve months.

Note.—The F.C.C. emphasises the need for strict observance of Rule 9 in the Transmitting Section and Rule 3 in the Receiving Section.

RECEIVING SECTION

1. The Receiving Section is open to all Short Wave Listeners in Australia, but no transmitting station may enter.

2. Contest times and loggings of stations on each band are as for transmitting.

3. All logs shall be set out as shown in the example. Logs must show first the call sign of the station calling (not the station being called), the serial number sent by it and then the call sign of the station being worked. The scoring table to be used is the same as that used for transmitting and points must be claimed on the basis of the State in which the receiving station is located. A sample is given to clarify the position.

It is not sufficient to log a station calling CQ, nor is it permissible to log a station in the same call area as the receiving station.

For purposes of the Contest, VK1 and VK2 are considered to be the same call area, likewise VK5 and VK8.

4. A station heard may be logged once on phone and once on c.w. for each band.

5. Club receiving stations may enter for the Receiving Section of the Contest, but will not be eligible for the single operator award. However, if sufficient entries are received a special award may be given to the top receiving club station. All operators must sign the Declaration.

6. Awards. — Certificates will be awarded to the highest scorer in each call area. Further Certificates may be awarded at the discretion of the Federal Contest Committee.



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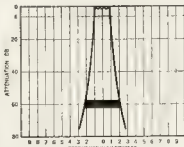
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PROFILE OF VK3ZEB

"I used to complain that I had no shoes until I met a man who had no feet."

RAY Bedson, a 25-year-old Ham, earns a happy living at a Preston (Vic.) electrical repair shop fixing radios and repairing television sets, tape recorders and record players.

He laughs and jokes with his work-mates . . . but he never sees them. He has been blind since a fall at school when he was 12.

Ray's "constant companion" when he is doing electrical repairs is a £50 test meter with a braille-scale.

When he wants diagrams of electrical circuits he draws them on aluminium foil. Soon he is "finger-familiar" with their every detail.

"I can do most jobs in radio repairs," Ray said, deftly pinching a wire bare of insulation. "Sometimes when a lot of leads are closely grouped, others might sort them out for me."

"But you get to know most of the sets. Anyway, we have all the makers' books here and if I'm not familiar with something, I take the book home and my parents read me the passage . . . or someone here will read the section."

Ray said he began taking radio as more than a hobby about 1957. Three

years ago he got the job in Mr. Maurie Grimwood's repair shop, in Plenty Road, Preston.

He found other firms wary of employing him because of the risk of electrocution. "But if you take normal care and safety precautions, there's not much chance of an accident," he smiled.

"A lot of the boys here have helped me," Ray added. "My knowledge of television has improved 100 per cent."

"I keep up-to-date with tape recordings and braille technical magazines from America."

As Amateur Radio operator VK3ZEB, Ray can be heard on two and six metres most nights.

It took almost three hours of oral examination before Ray was granted the Limited licence, but now he talks to people from Rockhampton to New Zealand and South Australia. (He will always welcome a call.—Ed.)

"You've got to prove yourself in this game," Ray said. "It will be a while before I start much television repair work. I've already had a few shocks from the set at home."

Boss Maurie Grimwood admires Ray's grasp of electrical theory. "Try him with anything—you'll never toss him. It's easy to see he's an expert. You only have to talk to him."

(Ray can be seen operating a test meter with a braille-scale on the front cover of this issue.—Ed.)

FORTHCOMING CONTESTS

THE NINTH EUROPEAN (W.A.E.)

DX CONTEST, 1963

The Deutscher Amateur Radio Club (D.A.R.C.), the sponsor of the W.A.E. Certificate, invites Amateurs throughout the world to participate in the 9th W.A.E. DX Contest, 1963. This well known and commonly popular Contest was, till now, held in January of each year. Due to the reduced sunspot activity, the DX conditions have been so poor during the last winter, that the 9th European (W.A.E.) DX Contest was again tentatively put off to August. It is hoped that this date offers more frequent and better possibilities of contacts, especially on the high frequency bands.

The object of this Contest—as in the preceding years—is to establish as many contacts as possible between Radio Amateurs residing in Europe and Amateurs located throughout the remainder of the world.

Contest Periods: C.W.—0000 GMT, Saturday, 10th August, to 2400 GMT, Sunday, 11th August. Phone—0000 GMT, Saturday, 10th August, to 2400 GMT, Sunday, 11th August.

The following Amateur bands are to be utilised 3.5, 7, 14, 21, and 28 Mc. Cross band operation is not permitted.

Sends logs to Dr. H. G. Todt, DL7EN, Chlodwiesstr. 8, 1 Berlin 42, Germany, not later than 30th September, 1963.

4th ALL ASIAN DX CONTEST, 1963

The J.A.R.L. will hold the 4th All Asian DX Contest this year and it is hoped that Amateurs will again enter this Contest.

The purpose of this Contest is to increase the activity of Radio Amateurs in Asia and to establish as many contacts as possible during the Contest periods between Asian stations and non-Asian.

Contest Periods: 1000 GMT, 24th August, 1963, to 1000 GMT, 25th August, 1963.

The following Amateur bands may be used: 3.5, 7, 14, 21 and 28 Mc C.W. only.

All logs must be postmarked not later than 30th September, 1963. Send to J.A.R.L., All Contest Committee, P.O. Box 271, Tokyo, Central, Japan.



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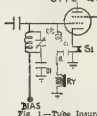
SIDEBAND TOPICS—BUD POUNSETT,* VK2AQJ

TUBE INSURANCE

Have you some hard earned cash invested in one or more expensive tubes?—read on. You probably would have trouble finding someone to insure it against damage or failure. Why look when you yourself are available?

This protection can only be applied to linears using fixed bias, such as the 6146, 4X150, etc. You can see how it works after a quick examination of the schematic of Fig. 1. The normally open relay only closes the contacts S1 when sufficient bias is applied to the grid. For this reason it is very necessary to connect the r.f. choke right at the grid pin. The relay needs to be reasonably sensitive, the squelch relay from an SCR522 transceiver is the one I use.

6146=£3-10-0



This relay has a resistance of 5,000 ohms and requires only a milliamp, or so to operate. The value of the resistor R depends on the operating current of the relay and the minimum bias that is safe for the tube. The operating current can easily be determined by experiment. The resistor value in kilohms is found by dividing the minimum voltage by the operating current in milliamperes.

Have you ever seen a 6146 tube after it has lost its bias and still has 750 volts on the plate and 250 volts on the screen? A most depressing sight indeed. Let us hope you never see it; underwrite your own insurance today.

*7 Thorpe Ave., Queanbeyan, 45, N.S.W.

MORE PROTECTION

Back in "A.R." Sept. 1959, you will find a very similar circuit to Fig. 2. Old timer sidebanders may have overlooked it and newcomers may not have seen it, so here it is again with an important modification.

S1 is a spring-loaded switch, S2 and S3 are normally open contacts on relay RY, while S4 is a set of normally closed contacts on RY.

After the heaters on V1 and V2 have had sufficient time to heat up (my supply uses 866As), the switch S1 is pressed. High tension immediately appears at the point marked. The filter capacitor C, which is usually rather high, charges, but at a slow rate determined by the 1,000 ohm resistor in series to ground. At the same time the 100 μ F. capacitor is charging until it reaches the operating voltage of the relay RY which operates, closing S2 locking up the transformer primary, closing S3 and shorting the 1,000 ohm resistor and opening S4, removing the 100 μ F. capacitor from across the relay coil. The 1 meg resistor then discharges the capacitor. It all happens faster than you can read this and amounts to about half a second.

In the event of an overload on the h.t. line and the voltage falling below a certain figure, the relay RY will drop

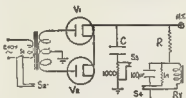


Fig. 1.—H.T. Control Modified.

out, removing the mains from the transformer primary.

The modification to the original is the addition of S4 and the 1 megohm resistor. This modification ensures that the relay drops out faster under overload conditions.

The value of R and RY will depend on the h.t. voltage and the operating current of the relay. When you make your calculations, remember to also take the power dissipated in the resistor R into consideration, and choose a resistor to handle it. If your relay has an extra set of normally-open contacts, use them to switch on a red pilot light to remind you that your h.t. supply is a killer at heart—BE CAREFUL.

ERRATUM

In the Index to "A.R." Technical Articles—1958-60, page 15, Dec. 1960, "Crystals Substitute Mechanical Filter" is entered in the Transmitting Section, but more correctly should appear under Receivers, as it refers to its use for c.w.



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National Field Day—1963 Version

R. A. CATMUR,* VK5FY

ONCE more the joys of a Field Day came upon us in South Australia, and the Elizabeth Amateur Radio Club again girded up its loins, cracked the whip over the slaves, unlocked the Treasury (also the Treasurer) and betook itself unto Black Top Hill, some 15 miles North of Adelaide.

The various characters who turned up in various states of dress and undress were:

VK5 SPE (our worthy President), SNO (Slim), 5NQ, 5DY, 5FY, 5WV (Hon. Treasurer, complete with money bags), 5AW, 5QL, 5DK, 5EU (21 Mc. Harry), 5TM, 5AX (Pump-handle Les), 5DE, 5UE, 5DS (the Scot(ch)man from

generators had to be pressed into service.

The set-up was similar to last year in most respects, the 40 metre station using a dipole with its centre up some 35 feet on a three-section mast. Apart from its power supply, it was self-contained in a van together with the 1 metre station using a 13 element yagi.

The next station, some 500 feet away, was used on 80 and 20 metres (80 at night, 20 during the day) and had twin dipoles whose centres were supported by a 50-foot crank-up tower attached to the van containing the station. Above the dipoles was a 3 element 6 metre beam for the v.h.f. rig at this site.

The third station consisted of two vans, one containing the 160 metre and 15 metre rig and the other the 2 metre station and a general purpose standby rig for all frequencies. The gear on 2 metres had a 13 element yagi atop a 50-foot telescopic pole made by 5ZMK. In addition, the h.f. antennae shared by both vans were dipoles for 20 and 15 metres, a long wire, and a rotatable vee beam. The method of rotation was somewhat unique, and consisted of two slaves galloping over a thistle infested paddock on the word of command!

The 40 metre rig was operated by the author, ably assisted by Roger Miles. Brian VK5ZBR operated the 1 metre rig in the same van—can you imagine the racket in the van with 40 metre phone going its hardest and the 1 metre rig quietly pushing out a couple of watts of rush-box hiss!

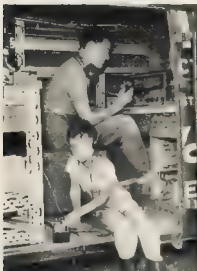
The 80/20 metre station was under the control of Cyril VK5DY and Jeff VK5NQ, assisted by Tony Strong and Ron George. Colin VK5ZLH operated the 6 metre equipment.

The remaining stations were John VK5QL doing the honours on 160 and 15 metres, Keith VK5ZMK on 2 metres, whilst the old DX hound, Tubby VK5NO, was the keeper of the general purpose standby rig.

In general, the stations got away to a fine start, the 40 metre rig was operating by midday, and the others at various times later. By mid afternoon all the rigs and antennae were operational and a good thing too, because George VK5CV duly arrived with his car boot full of cold, canned amber liquid, into which we all tucked with great gusto. This wonderful gesture by George now seems to be a habit since he did the same honours last year. We all thank you George, you time it so well too! As a matter of fact, it has been rumoured that the Managing Director of SNO Enterprises was seen quaffing one before she left the site!

During these most enjoyable proceedings our worthy President, Mr. Clive M. Pearson (Council Member, V.I.A., South Aust. Division; operator of 5W and other sundry occupations) drew himself up to a great height and commanded silence with a phone signal to outdo all phone signals. When utter

hush had made itself manifest, Clive proceeded to inform us that the commencement of the Field Day was nigh—that we should all be more gentlemanly than usual, not run more than 500 watts etc., etc., and be especially careful not to smoke within 12 feet of stubble or we would be liable to a fine of £50. At this, Tubby in particular was visibly shaken, his editorial eyes glazed over, and he trembled like a 5PS in a high wind—too his pipe emitting a plasma like flame, was about four inches from some stubble—quite an area too if you count the double chins! However, when the Tub realised it was the ground stubble Clive was referring to, he rapidly became his old self again.



John VK5QL (160 and 15 metre station). John's junior op. Stephen is checking to see Dad doesn't splutter!

Adelaide), 5RG, 5CV, 5ZBR, 5ZMK, 5ZLH, 5ZMT, and 5ZAH (The Admiral). Others included Tony Strong, Roger Miles, Peter Field, Tony Saville and George Downing. Ron George, of Antiference Ltd., was with us again this year complete with van and crank-up tower.

Amongst the visitors were VK5 5EF, 5DQ, 5ZK, 5GZ, 5MX, 5LD (Pop), 5OJ, 5ZBC, 5ZIG, 5BQ, and 5WN. Probably some others, too, who just didn't get identified. Our apologies to you!

By the time yours truly arrived at 9 a.m. Tubby and his willing band of slaves had the cables in situ, and we were able to settle in promptly, with very little bother or fuss—yet! Due to circumstances over which our finest scroungers had very little control, the large donk of previous years was not available (it was undergoing a face lift). As a result, a number of smaller



The 80 and 20 metre h.f. station, plus 6 metre rig.

To finish off what is now known as the Pearson Pop Talk, Clive presented Jeff VK5NQ with a magnificent gold cup donated by W3AOH to the winner of the "CQ" World Wide DX Contest in 1961. The cup had been suitably engraved and the genuine Fort Knox stuff could still be seen, that's how thick it was. At this juncture a certain Mum was heard to say "What a lovely vase it will make." "Such degradation when it was obviously made to hold 'Red Ned'," replied Dad. All nonsense apart, it was a very generous donation by Tony Susan, W3AOH, and Jeff is proud of it. Not to mention the South Australian Amateur fraternity in particular—congratulations, Jeff.

After the clapping and general back-slapping had ceased, we returned to

*142 Woodford Road, Elizabeth North, S.A.

our respective stations to commence the National Field Day Contest. That was where some of the trouble started, one end of the 40 metre dipole had come adrift, and had broken the inner conductor of the co-ax at the top of the pole. Down it came and after some rapid repairs the whole caboodle was hoisted up again at about five minutes before the Contest was due to start.

At the duly appointed time of 1800 (in "A.R." which we assumed was 1800 E.S.T.), we were all cluttering up the ether—the 40 metre rig, however, was emitting lots of pickles anywhere but up the spout. Smoke signals, carrier pigeons, and a small boy were hastily sent to the standby station which promptly came on the air to relieve the situation. Following some snooping around, we discovered the input voltage to the van was 200, and the transmitter control circuits were failing to respond. After giving the donk a couple of slaps across the brushes, and tickling it up a bit, the volts came good, the rig came good—so off we went again.

A couple of hours and 35,000 flying ants later, we in the same van smelled a smell, a familiar smell of boiling enamel, and how many of us haven't at some time or other? Brian, Roger and yours truly, looking like the proverbial bloodhounds, followed our sniffers right up to the modulator which by this time was old enough to smoke! "Woe is me, fiddle-dee-dee, and the damnation of Faust," I thought—I don't use the nearly famin' thing all year and this is what happens! At this moment an angel in disguise materialised in the form of one Rob Gurr, VK-5RG, who helped the situation immensely by taking over the c.w. reins and let us investigate whilst he knocked a few more points up.

Nothing really wrong however, the generator had become over enthusiastic and was happily sending us more than our required voltage—275 in fact, and an electrolytic had gone west, using the choke as a load. A pair of cutters soon fixed that, and after a check to see if everything was in Field Day order, the modulator was ready for business again. So were we, and soon

we were following the old routine, c.w.—phone, then back to c.w. again as conditions dictated. Rob did a fine job and I believe he thoroughly enjoyed himself—thanks OM.

Being at the 40 metre station most of the time, unfortunately kept me from snooping around the other shacks in search of little interesting tit-bits. Still, Jeff and Cyril helped once by sitting on the tx switch and allowing us to overhear unwittingly a short conversation about the band conditions in general. Why didn't you keep it on longer chaps, it might have got really interesting!

Bill VK5WV was the general factotum and assisted by Tony Strong as demanded, kept the donks filled and also toted round cool drinks, being helped in this by Alan, my junior operator. On the first day, however, a cameraman from one of the local t.v. stations gave old Bill's car a gentle nudge. Now Bill's car didn't take too kindly to this, and to coin a phrase, promptly dropped its bumper. Bill was really worried about this because, as he said, "If I fix that up with a bit of wire as well, the car will look like a telephone exchange!" However, all's well that ends well, and soon Bill and his car were clattering up and down the road dispensing cool drinks to the operators and donks alike.

Sunday morning saw the boys all arriving bright and early, and after checking everything, were ready for the word go at 0830, despite the odd showers of rain that appeared. The day's activities saw everything running sweetly, and even Dave VK3DS was persuaded to apply his c.w. fist into service at the 180/15 metre station.

In general, from what was heard on 40, there were a lot more mobile and portable stations participating this year. Our good friends at VK5WC were heard on many occasions and were knocking up a tidy score. The v.h.f. bands, however, were disappointing after last year.

I must refer to your cryptic comment, Ed., in the S.A. Notes for Feb. We have doubts that the 5PS type signal can reach Elizabeth, 'cos we didn't hear him in the Field Day! We have

been hoping Warwick would pay us a visit one Field Day because there would be a wealth of material for him (even money he arrives next year at 5CV time!). How about it Warwick, or are you scared of the black fellas out this way?

This article would not be complete without acknowledgments of our sincere appreciation to all the many Amateurs, and non-Amateurs, who helped in one way or another, to Ron George and Antiference Ltd., for their loan of a van and tower; to Ermsmith Ltd., of Adelaide, for the loan of a similar van and tower; to the Elizabeth North E.F.S., for the loan of knapsack sprays; and, of course, to the property owner and manager, who allowed us once again to use their land.

In conclusion a number of Amateurs were asking why the Contest does not run for 24 hours, since many of the organised groups have to leave their equipment for some eleven hours, free-wheeling as it were, until the next morning.

It was also noted that here and there is an impression that contacts made on the first day can be worked again on the second. (Same band, same mode.) Our interpretation of Rule 4 is that having worked a given station on one band in both modes, that station cannot be worked again during the Contest on that band. Perhaps a slight modification to Rule 4 might clarify this point.

P.S.—I'm glad the Field Day comes but once a year!

OFFICIAL VKO CALLS, 1963/4

VK0AP—A. Paterson, Mawson, Ant.
VK0BE—B. Eyre, Davis, Ant.
VK0DC—D. Creighton, Mawson, Ant.
VK0DM—D. Myles, Macquarie Island.
VK0GS—G. A. Smith, Mawson, Ant.
VK0MC—J. McKenzie, Wilkes, Ant.
VK0NL—N. T. Lied, Heard Island.
VK0VK—S. Grimsley, Wilkes, Ant.

QSL cards for the above may be sent via the W.I.A.

Thanks to VK3IJ, Doug Twigg, of A.N.A.R.E., for above information.

—BERRINS, WIA-1304E.

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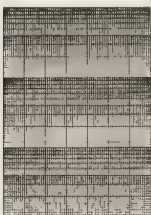
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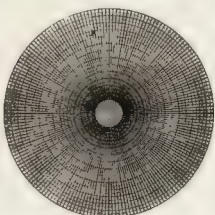
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ADDRESS CORRESPONDENCE FOR THIS PAGE DIRECT TO THE SUB EDITOR

Sub Editor: LEN POYNTER, VK3ZGP.

14 Esther Court, Fawkner, N.15, Victoria

ADDRESS CORRESPONDENCE FOR THIS PAGE DIRECT TO THE SUB EDITOR

WHF

The month of July is here and the first effect of the recent frequency changes to alter our v.h.f. allocations takes place. That is, we lose the 288 Mc. band. However, in June 1964 we have delivery of our new band, 430-450 Mc., and in all probability 50-53 Mc. will be lost during the coming year.

By all accounts 70 Cn. will be a popular band, if we can believe all stories floating around that there will be plenty of equipment ready to go on last Jan. Who will have the first QSO?

Here in VK3 an investigation is being made into the possibilities of a band-planning scheme for 2 mhz and 70 Cn. Briefly it could be similar to the U.K. 2 mhz band plan which is a geographical and frequency scheme. Separation of counties who use a particular segment of the band. There are nine zones utilising their band 144-148 Mc. Zone 1 144.0-144.1, Zone 1 144.1-144.2, etc. This is reflected up to 70 Cn with Zone 1 using 431-432.1, Zone 2 432.1-432.2, etc. The advantages of this system are many. For it is possible to look for a particular area, by pointing your beam in that direction and tuning the particular segment. Of course there are disadvantages to any point of view, but they have been minimised and the whole scheme appears to work very satisfactorily. Whether we need to go that far is being investigated. The writer being a member of the committee, would appreciate views and opinions on the possibility of a band plan in VK3. Particularly from country Amateurs. A time limit has been fixed. It must be decided one way or another before Dec 31, 1963. Your opinions please. (The whole scheme would be a 'Gentleman's Agreement').

V.S.F. DX Club of N.S.W. You will read further on details of an award by this Club for V.h.f. Amateurs interested in DX. I first read this in "Break-In" N.Z.A.R. Bulletin. I hope that the venture will be a success and trust others will emulate this effort and encourage v.h.f. DX.

Speaking of v.h.f. DX, use these pages to publicise your efforts. We would be very pleased to give publicity to any special efforts, scheduled, etc., to push v.h.f. signals further. Why not drop me a line with all the relevant details? We could start a new section on v.h.f. DX.

What could be the mid winter 6 mhz openings took place over the week-end of June 1-3, with good signals between VK3-VK3. VK3-1296, 1100-1400 on both days, or is the moon to come? Time will tell.

I would appreciate it if you could let me have your review by the 1st of the month as it greatly facilitates putting all the pieces together. Would those Divisions running beacons on the various bands please supply me with up-to-date details of frequency, power, times of operation, etc. An accurate map reference would be invaluable for beam directions. T3, Z2GP.

NEW SOUTH WALES

It looks as though Paul Z2VF, having got thoroughly fed up with lack of activity on 2 mhz has decided to do something about it. Hence, much activity over the last few weeks with four stacks of nine yagis, 100w. tx, and percent power supplies, and who has been travelling north by west towards Mt. Xbor, inland from Coxs Harbour, and about 250 air miles from Sydney. He has been heard on 2 mhz. He is the scorpion on the trip which was scheduled for May 31, June 1 and 2.

David Z2VW now runs 24 watts of aldrand to 90w on two meters and is doing good start. Roger Z2RH was almost "around the bend" with envy after getting back from a trip to VK3 recently. Roger says "Thank you for giving me a taste of what it is to be a yagis. Reminds me, he is also on two, sideband of course."

The message handling contest on 19th May went off quite nicely, with around 40 operators going hammer and tonga. No results yet, but they should be out in a couple of weeks. Ralph Z2VW has made a welcome re-appearance on the bands after a couple of months' absence, and runs a very sweet sounding 1m. rig on two now with around 100w input.

20th May saw the running of the monthly fox hunt with Lenore Z2KPF as the arful fox. Only about a two meter and probably a half to the cold, but non-attenders missed a

very good hunt. Dave 2AWZ found the fox about an hour after the start, followed by David Z2VW some twenty minutes later. Supper consisted of tea, hot dogs and cold food and among the cheerful faces present were Joe Z2QO, Tim Z2TM, John Z2AV, Bob Z2A, Dick Z2CF, Phil Z2PI.

By the time this is in print, the long distance fox hunt, which is the day event for June 16, will be over, but don't forget the all-band v.h.f. scramble on the nights of July 5 and 14, starting at 7.30 p.m., no cross band allowed, with a point per contact. Just the thing for these cold winter nights with your feet up on those nice warm 800s, glass in one hand and mike in the other.

Right after the v.h.f. broadcast on 25th May we decided a short scramble might unearth a little life, since we had had only three contacts in as many hours prior to it, and it must have had the right effect as up shot



Isaac Isaacson, V2TAQQ and his equipment. On 28th April, 1960, V2TAQQ contacted V2TAQQ on 50 Mc. This was approx. 7,330 miles.

Z2Z3 Unfortunately it was not DX as he was operating portable from the QTH of Steve Z2EK, but very fine to have visitor from VK3 land, even if he did complain about our glorious Sydney weather—which, incidentally, was indeed a chance. T3, Z2ZL.

That takes care of my monologue for another month, but a whisper in the ear of all you VK3 lads first. I would very much appreciate any information you can dish out for the notes, by mail or via 3 and 6 mhz, particularly from country areas, and also from you Mac Z2MO, if you get a chance. T3, Z2ZL.

P.S.—The YF of John Z2CD has presented him with a bouncing first harmonic, V1; congratulations Pky and John.

VICTORIA

First of all I must apologise for the lack of notes from VK3. This was due to the change in the committee of the V.h.f. Group and the election of new office bearers. We hope from now on to present the notes every month.

Six metre activity in VK3 has been on the increase lately with the help of many stations and DX. On 1st and 2nd June, there was an opening to VK4 and VK4s ZAA, ZNS, ZAZ, ZJS, ZCH, ZEK, ZW, RZ, and NZ were worked. Visitors to VK3 were George Z2VF and Mark Z2EK. George was mobile with 10w, to a 573 with a transistorised modulator, and Mark had a transistorised 10w. 6 mhz. Jock ZCS has been worked on 6 mhz again using s.s.b. and Alan Z2NG will be on s.s.b. soon. Other newer stations on 6 are

Roy Z2OM and David Z2OP, who will soon be running 60w. to an 815, with a 4-tube converter to a 5X15.

3205. These have got under way on 50.53 Mc. and early stations on frequency were Len Z2GP, Bert Z2GD, Ian ZALZ and others are now on or on the way.

3 mhz activity has been at a high level with country activity increasing. Active country stations are SVL, ZSER, Z2DF, ZAGV, ZDY and new stations in Melbourne are 3APK, Z2GQ. Ron Z2RK is now running 60w. to a QRP-60/40 and George Z2JQ has 100w. of s.s.b. in a 12 over 12 up 50 feet. Lindsay ZAWY has his 522 back on 3 mhz, and will be in business soon. Alan Z2CJ recently moved to Swan Hill and has been worked by Gordon ZAGV. Bill Z2RH hopes to raise his e.r.p. with a 5 over 5.

The first v.h.f. get-together was held on 8th May with 50 Amateurs present as well as VLA, VCA, ham radio, etc. There were several events held and Bob Z2TU won the most events. I would like to thank Jack Z2JK and Ted Z2KP for their help.

There has been an upsurge of micro wave activity in VK3 and the most active are Z2NR, Z2GM, Z2MQ, Z2KC, Z2AF, ZABY. The best effort so far has been a 15 mile QSO on 3300 Mc. at 8 by 9 plus both ways. The others we are going after some records in VK3, T3, Z2NJ.

QUEENSLAND

The monthly meeting was held on Friday, 17th May. Victor Z2BT elected yours truly for the job of writing these notes and also to give a lecture on V.h.f. Antennas at the next meeting.

On the 50 Mc. band activity is alive, with some people going for a surprise. Malcolm Z2NL had his high powered 4/150 working well, until the driver went wild and generated 4 v.t., but he is gradually bringing it under control. David Z2ZL is working on 50 Mc. on his AX150 to feed into his new six element beam. Ron Z2EK is finding his QSO/40 Mc. band Australia is working with his s.s.b. rig of late and puts out a fine signal in this direction. On 26th, APU, from 42ZN is back on the band after a noticeable absence.

44 Mc. Z2LO, Z2AS, Z2CH, Z2AV and others are building for the band. Victor Z2BT is busily engaged in "Oscar" work. He has a chart recorder in operation and is building more amplifiers and a panoramic rx. He also has a beam tilter which is raised by compressed air, and the beam can rotate at the rate of 180 degrees in one second.

40 Mc. I have had a couple of cross-band contacts (6 to 1 mhz) with Z2EL and did attempt to make contact with Mick Z2AA, but did not meet with any success. Ralph Z2CH is also active on 40 Mc. with some work from Ipswich, but did not break the barrier either. The equipment used was super regens., some 100w. on all attempts.

General news comes across Graham Z2GN. It appears he was required by his employer to do some wiring in the mental home at Goodina, and while waiting for the other electricians, he managed to get locked in. I believe it took a considerable time to convince several medical students that he was not insane.

On this numerous note I conclude. T3, Z2DF.

SOUTH AUSTRALIA

35 Mc. No DX was reported for the month of May on this band. Eric Z2BI at Clare has been working into Adelaide occasionally, this is only a haul of some 80 miles, but the terrestrial weather and the distance to connect with the c.w. are informed that Dave 5DS is running slow Morse practice on 35.4 Mc. every 10w. is about 144.5 Mc. C.S.T. Z2LV, of Willatooka, was mobile on 35.4 Mc. to Adelaide on 6 mhz.

144 Mc. This band has been quite active. Constanter M. Gamble, Victor Z2BT, and Peter Pirie among quite a high level of activity. One newcomer is John Z2JB, his freq. is about 144.5 Mc. He is using a helix. John has used this antenna for several months on 108 Mc. and is trying it out on 144 Mc. Harry 3HQ has a mobile converter for 144 Mc. on the way.

(Continued on Page 16)

288-296 Mc. BAND

Amateurs are reminded that the 288-296 Mc. band was withdrawn from use on 30th June, 1963.

(Continued from Page 15)

578 Mc., Rod 6ZDS and Charles 6LK arrange parties to go to Cape Naturalist and Mt. Solas, to attempt to push the 578 Mc. record over 100 miles. Unfortunately the Mt. Solas road was blocked by two trees so the attempt was made at Eagle Hill, approx. 25 miles further

for quick confirmation, return postage should be enclosed.

(5) Only contacts made after 30th June, 1962, are eligible.

These items are reprinted from "Break-In" for April 1963 and forwarded to me by Bill ZLSCD. We hope to give more ZL news from time to time.

LOW DRIFT

MAXWELL HOWDEN
15 CLAREMONT CRES.,
CANTERBURY, E.7,
VICTORIA

Well another R.D. Contest will soon be on us again, so now is the time to get that rx in good order or perhaps your aerial. This Contest is by far the most popular one of the W.I.A. Contests. While we are very pleased to see you support this event, it would be most pleasing to see some of the other Contests better supported by the W.I.A. in the future. Keep this in mind, then decide to have a go at one of the other events.

Now I would like to say a few words about QSLing. Without mentioning names, I think some of our s.w.l.s. may have got the wrong idea from a few words that I wrote in a recent issue of "A.R.". Now by sending return postage with it, of course, not guaranteed results, but at least you will have a much greater chance of receiving a reply. I'll admit that some people keep the postage for themselves. This is certainly a low trick to say the least. However, I must decry the practice of sending a terse note reminding the Ham that he owes you a QSL. A friendly note may help. But remember that the Ham is under no obligation to answer your report, even if he does not enclose return postage. Don't get the idea I am supporting the Ham who refuses to answer s.w.l. reports. Far from it. But I am just trying to be fair to both parties. And I am just trying to make you all in similar light.

S.W.L. GROUPS

New South Wales: The latest news from Sydney is that the Group was holding the annual elections in April. The N.S.W. Group meets at Winesap Institute Centre, 14 Atchison St. Crows Nest, at 8 p.m. on the third Friday of each month. The Group would be pleased to have visitors at their meetings in the hope of talking them into becoming members of the Division. Any further information can be obtained by writing to the Secretary, S.W.L. Group at the above address. The Group would like to see more of their members attending the meetings each month.

Victoria: The Victorian Group has its general meeting on the last Friday of each month at 8 p.m. at 478 Victoria Pde. East Melbourne. Visitors are welcome at all the Group's functions which include technical visits, radio construction nights and general meetings. For further information contact the S.W.L. Secretary, 24 Fawcett Rd. Hampton, S.T. Vic. The Group would like to see more of the members attending the meetings each month.

Other States: We have not received any information from the Secretaries of the Groups in South Australia so far, after requesting them to supply information for publicity use. If you are interested in joining the W.I.A. and thus being entitled to an s.w.l. number, we suggest you write to the following address for more information about activity in your State:

Queensland: Registrar, Qld. S.W.L. Group, C/o W. Jehn, P.O. Box 51, Ipswich, Qld.
South Australia: Secretary S.W. Group, Box 1254K, G.P.O. Adelaide, South Aus.
Western Australia: Secretary S.W.L. Group, 1000 Stirling St. Perth, W.A.
Tasmania: Secretary S.W.L. Group, Box 8312, G.P.O. Hobart, Tas.

MAIL BAG

Victoria: Maurie recently became the proud father of a daughter. Maurie is not finding much time for DXing these days, however the rx still gets duty when he is able to.

If we have enough members who can listen on the v.h.f. bands, we may be able to organize a contest in conjunction with the v.h.f. and dx days this month and during the next few months of the year. Give it some thought chaps.

Congrats to Ron Young for his fine effort in the Ross W.M. Contest. Noel L3161 has not been active for some time, but is pleased with the results from it. Your article was most helpful. The Group I am unable to report anything about is the most active. Albert is one of our younger members, is at present very busy studying for his ticket. Good luck Albert.

Greg L3138 has at long last erected his 14 Mhz. station and is now pleased with the results from it. Your article was very pleasing to read. SBRCC/F316 a few weeks ago on 14 Mhz. s.w.b. but can anyone help with his QSL manager. Craig Cook is doing a good

job with the s.w.l. notes over 3W1 each week. However he is finding the old trouble, very few members help him out by providing news, so now about it chaps. Drop Craig a line or else ring him at LV 1773. His address is 19 Foch Rd., Ormond, S.E.S.

Michael L3131 sends along an interesting letter telling of his activities. At the moment he is doing a lot of snooping around 7 Mc. at 3 a.m., yes that's right—3 a.m.—and is being rewarded for his efforts. Some time ago Michael gave a rx to his YL and at the present time Denise is picking up the DX better than he. The next visit of the Group will be to the O.T.C. at station at Yvickville, via Ballan, on Friday, 8th July. Further details will be announced at the next meeting of the Group.

New South Wales: Chas L3141 sends along an interesting letter telling of his activities. He has been rather busy of late repairing radios and L.v. and as a result he has not had as much time to devote to s.w.l.ing. However, some interesting QSLs have come to hand: IALH, BPHF, BCICC, CTWY, DJEST. Nice going, Chas old boy.

Don L3023 has been fairly busy but has found a little time to check the bands. Can you help him with the missing QSLs for FOMBY and KCAAC? Over the Easter period Don had a real feast with the DX, best catch was HCACA who was on an expedition to the Challenger Islands.

Queensland: Afton L3136/VK4 is still recovering from his recent mishap on the Finisero when he has been unable to send a QSL because recently he received a batch of QSLs

Last month's message—the month's message—and every month's message! If you can't spare an hour or so, please write to the group. Another message is in the cryptic numbers 128467. Perhaps the missing 8 has been the little secret weapon to get our four quencies back for even preserve the skimpily lot we have) at the next I.T.U. Conference.

Fine news from Ken VK3TL this month. He sends me some well-designed Application Forms which help him with the information of most use. Negotiations are now in progress in VK3 to have the Boy Scouts' Association recognise their Proficiency Certificates. Ken expects to issue the first Newsletter in the next few weeks and promises me a copy. A warning to the public to Y.R.O. was set in the recent "Wonderful World of the Young" at the Exhibition Building.

Keith ZAIX has three good passes in Junior Certificate at Bourgal High: Raymond Elkin, William Brown, and Susan Brown. Congrats to the three.

Here at Lynnham High, we also have three Junior Certificate men: Watson, Bill Yeasdale and Roger Davis—who deserve congratulations. They are all striving at the leap for Inter-Continental Certificate. Roger hopes to reach A.O.C.P. in July and John George IGB later—he's not 18 until October.

Have you Club Leaders developed your full capacity for your own personal and club life into the vernacular? "How's your screwing?" Here are a few hints. When you approach radio dealers (large and small), make sure they see that you will not do them out of any business, but actually create more customers for them. But primarily give them the straight truth, if they are making your club or the benefit of the kids (joining the W.I.A. later is not guaranteed) and treat all the businessmen you speak to as gentlemen with hearts—and I mean it. Business firms which refuse to help you should not be in any way threatened (with publicity, or otherwise) as they will only be made stronger in the long run. You should not be afraid to ask if necessary for a straight donation of usable parts (I never heard of anyone myself, but any proper organisation with proper accounts could certainly do so) because you are donating your own time.

However, I think you will get more response in asking firms for (a) material still usable

from the VK4 QSL Bureau, which has been there for two years. Well it just goes to show that we should not despair too soon if the QSL Bureau is to come along. After all, it is hoped to visit VK3 in October for a quick visit. Fine and we are looking forward to your visit and you will meet some of the boys.

Western Australia: Peter L3031 has been hard at it as usual. He is hearing plenty of DX, mainly on 7 Mc. c.w. Peter listens to the Novice W stations and has made a lot of friends with our American friends. Peter has been an s.w.l. for about four years and in that time he has done very well indeed. He has logged a grand total of 8,250 stations (up till 25th May). That is a good effort Peter, and you sure must have spent some hours at your rx. Peter is thinking that he may get a new rx in the final month time.

T3. Mac Hilliard.

DX LADDER

	Countries		Zns.	S.s.s.		W
	Conf.	Hrd.		Conf.	Hrd.	
E. Treblecock	377	855	40	—	—	50
D. Grandle	113	359	38	30	104	39
A. Westcott	93	159	31	9	197	11
M. Hilliard	78	234	38	28	153	11
D. Cox	78	233	38	29	160	18
P. Hill	67	197	36	25	114	13
N. Harrison	44	119	29	4	30	32
I. Thomas	41	129	29	18	97	14
D. Coggin	10	98	7	2	50	14
G. Earl	9	100	7	1	73	—

YOUTH RADIO CLUBS

but with little sales value, (b) any help which does not actually cost them anything. An example of this is the case of the Y.R.C. which has happened in a couple of cases with me. From one source I acquired two damaged instruments which I took to the Australian agents. The agents saw my point and agreed to make a reasonable repair provided they could wait until they had a serviceman temporarily without an urgent job. In one case, this probably cost the agent nothing but the trouble of arranging the matter for which I am still grateful, but in the other the agent went to a lot of trouble and did an extra-special job beyond what was asked. Try your luck.

In regard to the donation of old but useable parts, there are literally tons of good components discarded every day in every big city. Try any place using wire for the remnants they always leave on their reels—and have you seen the bundles of good hook-up wire taken out of a telephone circuit for one fault? Any large radio and tv. repair place will have scores of old chassis to throw away every now and then—mostly with very good gangs, i.e., power transformers, resistors and (some) condensers. If you hear of a free, pay the remains a visit—when the foreman or insurance man is there! Old L.v. sets are now being thrown away like a rag. Write and ask to see them any more. An inactive Amateur in your district might get generous.

Such organisations as Rotary, Lions, Apex, J.C. etc. are wonderful if they adopt you as a project. A door-knock campaign in one block will always bring unexpected riches. Your local radio or tv. station will usually give you a free advertisement or even a broadcast interview. Have a go! And send me your latest story in the field of screwing.

My apologies to Brandy for estimating his own weight. No hard feelings—I'm just a little needy trying to find the right proportion. Always glad to see you if you come this far, P3, and we'll have a real drink. Perhaps you could tell me then whether Pat Pirie is the capital of South Australia!

Next month I launch a competition for the best design or plans for a Y.R.C. exhibition, and/or transmitter to go to exhibitions, fetes, etc. Watch for it, you avid readers—but read the rules written in the next issue recently from VK4 and VK6). T3. Ken ICM.

last month, or is he looking for a friend on the Publications Committee? After all my efforts not to reveal my identity, the cat has been out of the bag, so expect to hear from me in future. Shades of snakes, frogs and 'hubberly girls'.

Well, I see the N.E. Zone reported the State Convention for me, so now let's see what they have for this month. Take it away fellows, '8, JAFZ.

SOUTH WESTERN ZONE CONVENTION

The W.I.A. South Western Zone Convention, held at Bushy Park, April 1963, was held officially on the Saturday afternoon with the annual meeting, held to install new officers, and a picnic, held the next morning. All visitors were welcomed. Col Ferguson, from Mt Gambier, took the chair, whilst new officers began their installation.

There was a good attendance of members from all parts of the Zone and the following officers were installed: President, Bob 2K; Vice-President, Bill 3WK; Sec/Treas., Don 2AKN; Publicity Officer, W. J. Wines; Zone Station Officer, Don 3AKN; General Committee: Harry 3CI, Bill 3W, 3ZK, 3ZL, 3SV, Brian 3XN, Gordon 3AGV, Bill 3WK.

The Mayor of Warrnambool, Cr. P. O'Sullivan, who officially opened the Convention at the official dinner held at the Lady Bay Hotel, said it was a pleasure to see such an excellent gathering of men interested in such a worthy hobby. Cr. O'Sullivan spoke of the good work done by the Amateurs in times of fire and flood. He concluded by wishing the Convention every success. After the official dinner, 3DX showed several films, after which supper was served, bringing the evening to a close.

On Sunday all Convention activities and entertainments were held at Jubilee Park, near Warrnambool, where many items of interest were shown. Before the close of the day, the 3ZK and 3ZL, and family, who came down from Ballarat for the day, were welcomed, also 3ZK and fellow Amateurs and their families.

Best mobile was won by Bill 3WK. During the afternoon a scramble was held to ascertain the number of stations each Amateur could work on mobile equipment in twelve minutes. This was won by Bill 3XK and Brian 3XN, with a total of eight stations each. The 1st prize on a.s.b. was won by Dale 3ZK. He received an a.s.b. tx, which was a duck in a box—very nicely donated by 3WK, and built like tx. The ladies served a very nice picnic, which was enjoyed by all present. Members take this opportunity to thank them for all the work they did.

After lunch the progressive tx hunt was held. This was won by Bob 3K and Dick 3BK. Good work boys. The prize was the Geelong Amateur Radio Club trophy. An auction sale of surplus gear was held with Peter 3FK as auctioneer. We think he should have it for the way he did the job. Many thanks to Ray 3ZQ, who made a donation to the Zone from money received from the sale of his surplus gear in the above auction.

Ted 3PS organised a "number of beams in the air" competition. Heine, 3CN's XYL, won with her total of 451, which was the nearest to the correct total of 451.

We would like to take this opportunity to welcome Ray 3LK to the Zone. '8, Bill Wines.

WESTERN ZONE

Nothing sensational from the Western Zone this month. Mary 3AFD did his best to give these notes by starting a fire on a tag strip. We understand that he had to replace an 88 in the power supply after the fire. An expensive way of keeping the shack warm! Herb 3NN and son, Garry 3ZOG, have been on 1 m.c. mobile, running 1w, to a 616 test effort so far, from Perth. Fifty bucks will have been lost soon. 438 Ma. then, Herb? Vle 3AEQ has returned to the band after a break for shack renovation. Vle had a little trouble getting the rig on the air, but finally made it for the zone hook-up on 5th June.

Trev 3ATK has been keeping the Zone on the v.h.f. bands with 3ATN, consulting activity on 2 m.c. Brenda 3ZKN and John (or Wilson—same bloke fortunately) 3ZKN 3AFU are still getting the 1 m. equipment. No 3AFU yet. 3AFU now has an ATS on 160 m.c. and has had one contact with Don 3AKN. The technically incompetent 3AFU claims that the ATS is an easy way to get on to 160 quickly. If 3AFU can do it, then anyone can.

The advent of Channel 3 will probably have no effect on Amateur activity. Signal reports on 3 vary quite a bit. 3AFU is getting a good signal with only occasional slight fading, other stations which are not in the shadow of the Grampians report quite a lot of variation in signal strength and picture quality. 3AFU is using R.T.V. & H. (more or less)

antennae on Channels 3 and 6. They are hand-built from first quality fencing wire! People we haven't heard for a while: 3AOS, 3ATS, and 3AZM. Why haven't we heard them? Probably because we aren't on very often ourselves. It is rumoured that 3ASA and 3AFJ may be back soon. We are also hoping that there will be a couple of new calls soon. Back to the goggle box, '8, 3AFU and 3ZKN.

MIDLAND ZONE

Notes for this month start on a sour note, why? Well we held our Annual Meeting at Maldon on Sunday, 12/5/63 as a proposed picnic day and what happened. The large attendance of eight: VIKs 3ZIK, 3DG, 3AHA, 3AFJ, 3ADB, 3FO, Graham Young, Dennis Housley, with apologies from 3ND, 3ZL, 3SV. Unfortunately I myself was unable to attend as my duty commitments tied me to Castlemaine. However I would like to hear the reasons for the non attendance of other Zone members. The quickest way to kill any organisation is to ignore it, and members of the Midland Zone are doing just this, why?

On the credit side, we still have activity on the air by members who generally attend the meetings and as 7 Mc has been open, I have made some good contacts with 3ZK, 3ZL, 3ZK is still plugging away on 3 and 6 m.c. 30 m.c. has had some good openings and I have heard 3MO bounding the DX with success. Person-

ally I have had little time to go on the air except Sunday afternoons. Jim 3SV is in-adequate, being slower under with other responsibilities for the rest of the Zone, no news, '8, 3ND.

NORTH EASTERN ZONE

JVL was due home late in May, following treatment at a Melbourne eye centre. Not many on the zone hook-ups and the 40 m.c. band has been terrible. Some more indecisive discussion re the next zone convention. 3AYD allowed wife to clean up shack some time ago, resulting in misplacement of valuable records. Index of stations worked. 3FW mobile on 40 and 2 m.c. the letter on f.m. 3ADZ contemplates constructing f.m. car set himself. We had a gathering of chaps at Shepparton re Y.R.C. All set to go except we need more info about numbers of adult instructors and how many youths per instructor. We've written away for this gen.

Heard 3CI pulled down his tower and then put it up again. Something about changing from horizontal stacked jays to vertical stacked, or vice versa. Did reduce directivity we understand. 3CI, 3AFJ, 3SVL, 3ACK, 3ZJH have regular daily shacks on 3 m.c. at 1230 JAPH has the chance to see the ultimate in tv video strips. 3ZJH suffers from a bit of audio feedback. Have not had a feel of the Kinnear Trophy as yet. With the vast amount of rain

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SOUTH AUSTRALIA

The monthly general meeting of the VKS Division—the Division that never sleeps—was held in the clubrooms to a capacity audience, and the members were asked to vote on the films at times draw the long bow with respect to this capacity audience, I give figures for the night as an attendance of 120 members and 100 guests. The films were shown from 7.30 to 10.30 p.m. and the evening, the films being provided by the courtesy of the P.M.G.'s Department, and I say that the standard of the standard of the films shown was the highest. There were a number of film evenings to judge by. John SJC proposed the vote of thanks to the members and the P.M.G.'s Department, and in a few well chosen words expressed the feelings of the audience, who apparently were right and him, judging by the applause and the selling of the programme.

QSL card were then distributed by George SRX, who, incidentally, had an extra large copy of the paper on, and after the meeting business was concluded. The meeting began with little controversial matters were discussed, although Bas GGP in submitting the report on the "Wise Men of the East" had a few minutes to read and had a notable job. Several domestic matters came up for discussion, which, in view of the fact that they were purely for domestic consumption, were not of great interest. The meeting then turned to the "Wise Men of the East" should read them. A very unlikely happening occurred, as my interest was critical. The meeting came to an end and the closing ceremony of 11 p.m., although it was only by acting in a somewhat coarse manner and in a very unbecoming way, succeeded in not emptying the room long after that.

Bob SFU was congratulated at the meeting by the President, Phil BNN, on his elevation to the rank of a full advisor. Bob said he got some free advice on my numerous aches and pains. I contrived to sit next but one him during the screening of the films, but he was not aware of my presence. I was not wrong here, because his remedy for my pain in the tummy would have undoubtedly been worse than the pain I discovered later that his remedy was of no use at all.

Understand that our worthy President, Phil BNN, was conscripted to provide a public address system at a recent gathering of Girl Scouts in the town of Gila. The Girl Scout missioners was a lady of ample build with a voice to match, and she was astounded to blow her whistle into the microphone and then summon me to the microphone. I was sitting on the other side of the oval. Phil suggested to our reporter that she was nuke shy, but judging by the way he looked at me when I rose to the microphone to have my monthly say, Bob put a stop to that.

Comps 5EF, that keeper of the roll of all VK sidebanders, and may I be pardoned for such heresy, reports that the score is now 330 capable of quacking at the drop of a hat. Long time no hear Comps, where were you during my sojourn at Oakbank?

Two days ago, I mailed my usual correspondent, Club Bruce SZEG, went down with a very nice letter, and I received a very nice answer. I was cunning, talked to his XYL Pamela into writing his monthly letter to me. To all intents and purposes the allergy has departed, but believe me, I am not going to let my XYL know I have signed Pamela. XYL of Bruce. I do not intend to comment further on such infamy, except to say that I am filled with admiration at such a display of cunning. I am sure that my XYL will last, because there is many a day since charming and beautiful young women put pen to paper, and I am sure that my XYL will have caught myself casting a few glances in the mirror as I pass, and with my well known modesty I can only say that I am somewhat

At the last general meeting of the above-mentioned club it was noticeable that the membership is definitely on the increase, and one of the associate members is none other than Eileen, the XYL of Bert SEQ. Her motive is as yet a secret, but it is believed that she is working along the lines that "if you can't lick 'em, join 'em!" However, as my correspondent points out, "who ever heard of 'licking' a Radio Amateur? You push them down in one place and they bob up in another!" Pamela, how could you say such a thing?

The Youth Club is in full swing with the lowest attendance so far being around the 40 mark, and most of the lads are very interested, and one of the older lads, who is studying for his Leaving Certificate this year, sat for the Limited exam in April. Nice work, and hope you made the grade OM.

A working bee to get the club's tx in working order is to be held in the near future and negotiations are in hand to purchase a rx for use by the club for its W.I.C.E.N. net. Considerable interest has been shown in the above

by the Red Cross with a view to setting up communications between outlying accidents attended to by the St. John Ambulance and the Hospital. After the club has its gear in order, the Mayor, local M.I.A., Civil Defense Council, St. John Ambulance, St. John Red Cross, etc., will be invited to view what is available and to offer suggestions. Well, there you are, not bad for a country Amateur Radio club, is it? Once again many thanks for the interest and support of the community. The still goes up and down the main street, and also that a certain large establishment still pours fumes into the atmosphere. Anyway, if you can still joke about it, the old adage of humour must still be around. salute YOU.

Have been making several enquiries lately concerning the whereabouts of my old sparring partner on the Council, Jack SJD, and was surprised and pleased to read in the morning paper today that he had narrowly escaped drowning in the Murray, around Goolwa way. Jack was certainly lucky, whilst he was being rescued, his companion, a small, handwired dinghy which was in mid stream was drowned. Would have preferred to have heard about us in happier circumstances. Jack.

Frank BA is almost ready to leave Alice Springs and should be seen around the metropolis any day now. His final letter to me contained a distinctly bitter ending. He told me the next time I heard him on the air it would be with a quack! Another good man bites the dust, soon I will have to talk to myself. Wait a minute though, Pincott nearly had me in when he was over, I must double the guards!

Norm Colman is about to change his QTH from Rose Park to Payneham, so my spies tell me. Don't see much of him these days, but at least he continues his journey toward the East. Still out every night, Norm?

5PS GOES SIDEBAND

Our VKScribe has finally made it! Even if he had to acquire the equipment. Test transmissions have been heard recently. Carrier suppression is excellent, but it is difficult to resolve. At first it was thought to be "Dad Dad, Dad" or something, but now it is coming more like "Quack Quack".

Technical details are sketchy, but we understand the designer has resorted to two unusual features. He has achieved a physical layout which strongly resembles the owner and has applied the unusual colour scheme of black on top and a delicate wash of green for the front.

Our VK5 technical correspondent tells us that those who have seen the equipment feel sure the modulation is affected by a low frequency oscillation in the final when the equipment is mobile. SP5, however, insists the trouble can be overcome by inserting the equipment in an oven for about three hours; and we expect to know the results of this experiment next month.

We understand a large number of these rigs have landed in VKS, but so far SPS has the only one in captivity.

—Chaki Campbell.

Did you notice that VKS is to be the host Division at the next Federal Convention. Himeel I will have to tread carefully that week-end. Fancy VKS full of VKs over Easter. We must have committed a dreadful sin to reap that punishment!

Pete SPM is reported as still pursuing the elusive "big one," armed with fishing gear galore and a trailer boat. There is no truth in the rumour that he is planning extensions on his arms to help him describe the ones that got away. Isaac Walton lives again!

And Al, Al and Ses SGP are usually engaged in installing a hot water system in the QT3 of Al, but for some unexplainable reason at the moment of writing, the hot water is non est, which to you peasants may be taken as being up the spout. Get it, hot water up the spout. Get, hot water—OK skip it—I thought it was funny. Anyway, Al and Ses are clothed in protective clothing and dark thoughts, and should the hot water decide to issue forth, they even have an umbrella each. Hope springs eternal, etc., etc.

Rumour has it that the wild man from Lucindale, Arch SXX, is about to become the proud owner of an automobile. Understand he has been seen garbed in motor coat, gloves, goggles, safety strap, parachute and sheath. Dealing with his leanings toward the unusual, the engine of the car is said to be mounted sideways with a double spring movement. You wind one whilst the other is running down. Plays 76-33-15 and 7 1/4-mono or stereo. The Lord help the motorist who crosses the road. He is leaving no brightly interesting insinuations with reference to his parents!

The Admiral (SZAH) missed his code by nine points at the last sitting, passed his sending but slipped on the receiving. With true Naval spirit, he is by no means discouraged, and is determined either to get it next time, or fire a salvo over the examiner's head as a warning!

Luke 3:11 has been having a field day with the c.w. signals on 14 Mc., and in his own words, "Is as silly as ever he used to be in the good old days." Personally, I have heard him calling and working them, but I have never even heard one dot or dash from the other end. Perhaps he has translators for

Heard an old-timer on the band the other night, none other than Huck JNU. Years since I heard him, and can't remember when I saw him last. Hearing you again Huck, gave me an acute attack of nostalgia. Oh for the good old days.

No doubt about this Ted SJE. I spend all my time stressing in these notes that he is a fanatic about 7 Mc., and won't listen to any other band, no matter what happens, and then he goes and takes out the 3.5 Mc. c.w. section in the VK-ZL Contest! They must do it on purpose to trick me, there could not be any other reason.

One of the new set-ups of the new Council of VKS is to send out to all those requiring it, a copy of the minutes of Council and general meetings. Now this I consider a good idea, no longer do I have to ring various jokers and say "and I am sorry for the information" as I used to do to the happenings of the various meetings, but can read them at my leisure. Unfortunately for me, I had to pay one shilling excess postage on the first one I received, and can only deduce that some new member of the Council has been elected, and that I am not a full member. How could you Pat GUS? Half my weekly pocket money gone!

Jim SJK well and truly settled in his new QTH now, and keeping to his sworn statement that it would be years before he had time for on-the-air work. So much so that he has already erected a new mast and has been heard whispering sweet nothings into his microphone.

Joe SANC (—GMSHOM), one of my favourite
 Scotchmen, will have left our fair land to
 his native country, Scotland, for some time
 States. He has asked me to convey to the
 friends of VKS his thanks for making his stay
 of two years such a pleasant one, although he
 has not been able to do as much as he would
 like to be as active as he would have liked.
 He suggests that he will keep in touch with the
 friends in VKS through the magazine, and in
 the future, if he has time, he will write to
 suggest that if he remains long enough in G
 land, he might even hear VKSPS. Well you
 never know. I could bounce off a few
 lines, and you, and hope you will return some day.
 By the way, you never got round to letting
 me know how you liked the book. I have
 made the book. You must, you know.

Harry SMY rushed up to me at the meeting to tell me that he had paid his licence at the local post office and then received a letter from the Department threatening to cancel his licence because he had not paid up. You around me, that such wickedness should exist. Off the record, my a.w. friend, you and me too, see you in jail.

Joe MO, paying a visit to Cec 8CD, bumped into a well known old time radio identity in "Ned" Kelly, who used to be the technical development section secretary many years ago, also Jack 5LH and George 5GE, and quite a get-together was held. How was the red wine gentlemen? Don't answer that!

One of my novice spies reports that in his travels he bumped into Darcy SRJ, of Kadina, and if the propaganda works, he should make a re-entry into Amateur Radio at any time. Nice work Darcy, think of the years that you

Talking of spies, two of my Eastern friends from the Gambia decided to pay a visit to the South Western VCK Convention at Warrnambool. Welcomed with open arms and showered with hospitality, they were somewhat dismayed to find that the VCK was run by the Secretary JAKN to the effect that Fanny SPS could not make it, but not to despair, as he said he sure had a couple of spies in the convention. He then proceeded to react that Col SCJ and Stuart SMS were the only two VCKs present, the sudden coldness of the VCK towards the visiting spies was understandable. Sorry fellows, that's how dangerous I live over the border. Anyway, the coldness did not last long did it? Believe me, I would have been glad to see you, but you put them up against the wall, Don JAKN!

Glancing through last month's Divisional notes I could not but notice all the flattery aimed in my direction. Crawling will get you nowhere. TJ, de SP5--PanSy to you.

How the winter rain does fall! With the way
the weather has been lately, not so cold around
a neck of the woods mark you, but we
can't complain! Perhaps we should all be like
the men of RER and start building v.l.f. tx in the
form of an organ, as mentioned last month.
These are a delight to the eye and the ear. The
organ is a musical instrument with keys with
your finger, in fact, you can push several keys
with several fingers and transmit on several
frequencies at once. Harmonic transmission is
permitted as well as the fundamental, and
further, you can wobble any frequency about
a mic. point. And there are no R's. What
do you think? Hope everything goes
all right for you, Allen.

As a matter of fact news is coming in from all directions about Allan-type Hama, for we know that Allan EAB recently gave his daughter Helen to a marriage Hamlet. Hamlet was married to Herb EXO from Katanning, and Pat 6PM representing Perth. I believe the whole thing is being run with car-trial precision—two-way traffic. It's a bridge over too many waters. A big bridge. Quite unimportant, of course. But it's his name is Graham, and I feel that you would know just how the possession of a name can make one man's life different from another's. I record that the outcome of recent discussions between Allan and Graham was "No market, no marriage." So, here comes another Hamlet. Congratulations, and best wishes to you.

single sideband is still claiming new adherents and we find that Bill GBA is cutting the adherents bits off the carrier. M-m-m-m. Yes, Bill, I know there isn't any carrier either, but I signed up for a carrier and I'm not dropping it. I'm dropping it and mentioned last month was washing off. This has now been completed and it's "on the air." Good work, chaps. Also mentioned last month was the fact that carrier GYG had drifted East (this has nothing to do with changing frequency). I mentioned that the GYG was making progress for the GMM and also attended the I.R.E. Convention and saw Clarrie and commiserated with each other. That means I'll take an even money bet that they told each other how good W.A.

Not all the Hams go away, of course. Allan
O, our worthy Secretary, has been heard
20 and I'm told that Kerry 6EA has been
heard. Also I understand that one local Amur-
Niamara direction had trouble hearing
VR6 on the side of a canyon on 40. Does that
ring bell with anybody?
Talking about being on the air, a spy tells
me that Dave EDG is having an attack of
nits and is back on the breeze. Good for
a Dave, and it's true what they say, once
Ham, always a Ham.

This applies also to a man named Trigwell better known to you mob as 'Trig'), who has been toying with the possibility of taking out the call sign again. Never mind about doing the wrong thing, Trig, after all the worst that can happen to you is that someone will find the R.I. on your tracks. Get with it, man, and the best of luck!

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.....

"GEOFF" D. ASCHMAN, VK7GA

It was with deep regret that we record the passing of "Geoff" D. Aschman VK7GA. Geoff came to Tasmania from New Zealand and was licensed in 1948. He took a great interest in institute activities and was President of the A.O.C.P. extension during 1957. He showed quite a few young members the way towards their A.O.C.P. Geoff was an engineer in charge of Transmission Engineering and construction with the Hydro-Electric Commission in Tasmania.

Members of the W.I.A. extend to his relatives their deepest sympathy.

Incidentally, Len GLG is a regular sign on a number of bands and not only at night either. For now Len has retired, a Ham's life is a busy one. I enjoy your soliloquies and I'm sure others do, too. Reading the mail recently, I heard you mention that some of the younger was told he was growing deaf, and he replied that there was one way he could tell grow and that was to grow deaf. With the signal that comes from GLG, it wouldn't matter if he was deaf, he'd still hear it! Very

There is a word creeping into our language that I like. It expresses a positive, not rude, and quite correct if used in its proper place. Wait a moment! I haven't told you what it is. OK! The word is "pipe dream." Now that's right! If you are describing a dream that comes from a desire to a better life, now it describes such things as having a pipeline into another firm or office. However, the point of all this is that my spy has told me that you expect to get a blue book on this kind of thing. So you see, I thought I should explain so you wouldn't get a mental picture of a 10 ft. diameter pipe running across the

Old things like that remind me that at the last Council meeting, there was talk about the "old days" when exhibitions were held and the demonstrator used a Tesla coil about 10 feet high. Cigarettes could be lit from the sparks and in fact you could even draw sparks from the blonde assistant. The good old days when the Tesla coil was used to demonstrate passing out germanium dusts for cardiovascular disease. The days when the Tesla coil was used because they had reached their limit. Didn't even think of adding another cat whisker and making a transistor. T.H.S.

Apparently, Divisional notes for the May 1982 meeting went astray in the course of post, so I had better give the most important details from that effort. The Council appointments for the year 1982 were as follows: President, Snow; ICH and Len LLE as Vice Presidents, Snow; ICH as Treasurer, Snow; ICH and Len LLE as Secretary, David ZAI as Technical Editor to the Bulletin, ICH and Tom IAL as Distribution Committee for the Bulletin. The two new members of the Council were David ZAI (referred to as "Dasher") and David ZAI. David has the privilege of being the first Limited Licensee in the world to receive a Limited License. David, Charles IKS has been appointed as an ex-officio Councillor so as to act as Divisional Secretary, and we welcome you to the Council that presides over the Division.

Terry TCT has indicated that the A.O.C.P. class he has conducted over the past year or more is about to come to an end, so we wish every success to the examinees to face the music soon. Terry has indicated that he will begin a new class probably in February next. Congrats. on a job well done, Terry, we are much indebted to you.

At the June general meeting we were very much impressed by the address and film shown by the director of Civil Defence. At the same time, we were made aware of the tremendous problems and opportunities for us to help our fellow beings and I had the impression that all present felt the same way. We were delighted to see a wonderful roll up at this meeting, despite the bitterly cold weather. To

me just a few, Ray TTR, Brian TBP, Neville NC, Pat TGV. Tiny TJD were welcome faces. Doug TWD was also present, after his wonderful trip by way of annual leave on the mainland through VKG and VKG, just completed.

Several short stations were passed to help the T.V. Servicemen's Association members get an insight into Amateur Station operation late in May. Perhaps, t.v.i. problems, if and when they arise, might receive a sympathetic consideration from these chaps, now they have seen Amateur Stations at work. 73, 722.

No doubt due to the long and loud blast in last month's notes, I had a good attendance at the last zone meeting. Better turn up, y'know, chaps, or I will let TMX loose again! We were pleased to welcome visitor Peter Chalk, and also Len ILN and XYI, who have been touring VKY with car and caravan. This car is fitted with f.b. mobile s.s.b. rig, and has been giving good sigs throughout the State. Much time was spent probing in the innards of the unit after supper, and Len said a few words about the facilities available to his zone which made

As we have now decided to retain the Lakine Hall as a permanent meeting place, don't forget to bring along some db. to pay for it. Very pleasing to see headquarters come to our assistance in this matter. The auction next month

Basil Barnes sits for his ticket in July, so we all wish you the best of luck, Basil. Pity there isn't a couple more of the chaps in there with you. TB. T2BB.

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SELL: 60W. c.w.-a.m. transmitter with power supplies, complete. Gelsos v.f.o., 6146 final, modulator EL34s Class B, all-band final, 80-10 mhz band switched, fully metered, relays, etc., excellent working order, £50. VK4NB, N. Wells, 95 Gatton St., Mt. Gravatt, Brisbane, Qld.

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this man is installing it in a hearing aid

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